

REMARKS

Claims 1-27 are pending in the present application.

Applicants wish to thank Examiner Thornton for withdrawing the previous rejections under 35 U.S.C. §102(e) and 35 U.S.C. §103(a) each over Chaudhary et al. The claims are currently rejected under 35 U.S.C. §102(b) over Ellul et al (US 5,656,693) and under 35 U.S.C. §103(a) over Chaudhary et al (US 6,325,956) in view of Ellul et al (US 5,656,693). Favorable reconsideration is respectfully requested in view of the amendments and remarks set forth herein.

The rejection of Claims 1, 2, and 14-27 under 35 U.S.C. §102(b) over Ellul et al (US 5,656,693) is obviated by amendment.

The present invention provides, in part, a composition for laser processing comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit crosslinked with an organic peroxide (B), wherein said organic peroxide (B) is selected from the group consisting of t-butylhydroperoxide, 1,1,3,3-tetramethyl butylhydroperoxide, p-menthane hydroperoxide, cumenhydroperoxide, diisopropyl-benzenehydroperoxide, 2,5-dimethylhexane-2,5-dihydroperoxide, 1,1-bis(t-butylperoxy)cyclododecane, 2,2-bis(t-butylperoxy)hexane, 1,1-di-t-butylperoxycyclohexane, 2,5-dimethyl-2,5-di(t-butylperoxy)hexane, 1,1-di-t-butylperoxycyclohexane, 2,5-dimethyl-2,5-di(t-butylperoxy)hexane, 2,5-dimethyl-2,5-di(t-butylperoxy)hexyne, 1,3-bis(t-butylperoxy-isopropyl)benzene, 1,1-bis(t-butylperoxy)-3,3,5-trimethylcyclohexane, m-tolyl-peroxide, p-chlorobenzoylperoxide, 2,4-dicyclobenzoylperoxide, t-butylperoxy-isobutylate, t-butylperoxy-2-ethylhexanoate, t-butylperoxybenzoate, t-butylperoxy-isopropylcarbonate, and t-butylperoxy-allylcarbonate, as well as seals containing this composition (see Claims 1 and

14). Also within the present invention, this composition may further comprise a foaming agent (see Claims 2 and 15).

Ellul et al disclose thermoplastic elastomers containing (a) ethylene, alpha-olefin, and a vinyl norborene elastomeric polymer, (b) a crystalline or semi-crystalline thermoplastic, and (c) a curative (column 2, lines 41-45). As a curative, Ellul et al generically disclose peroxides (column 2, line 62) and azo initiators (column 9, lines 37-38).

At column 9, lines 27-36, Ellul et al define the scope of the peroxide to be employed in their thermoplastic elastomers. This group includes the following organic peroxides: 1,1-di-t-butylperoxy-3,3,5-trimethylcyclohexane, di-t-butylperoxide, t-butylcumylperoxide, dicumylperoxide, 2,5-dimethyl-2,5-di(benzoylperoxy)hexane, n-butyl-4,4-bis(t-butylperoxy)valerate, and benzoylperoxide (see column 9, lines 27-36).

However, at no point do Ellul et al disclose or suggest any of the following claimed organic peroxides: t-butylhydroperoxide, 1,1,3,3-tetramethyl butylhydroperoxide, p-menthane hydroperoxide, cumenhydroperoxide, diisopropyl-benzenhydroperoxide, 2,5-dimethylhexane-2,5-dihydroperoxide, 1,1-bis(t-butylperoxy)cyclododecane, 2,2-bis(t-butylperoxy)hexane, 1,1-di-t-butylperoxycyclohexane, 2,5-dimethyl-2,5-di(t-butylperoxy)hexane, 2,5-dimethyl-2,5-di(t-butylperoxy)hexyne, 1,3-bis(t-butylperoxy-isopropyl)benzene, 1,1-bis(t-butylperoxy)-3,3,5-trimethylcyclohexane, m-tolyl-peroxide, p-chlorobenzoylperoxide, 2,4-dicyclobenzoylperoxide, t-butylperoxy-isobutylate, t-butylperoxy-2-ethylhexanoate, t-butylperoxybenzoate, t-butylperoxy-isopropylcarbonate, and t-butylperoxy-allylcarbonate (see Claims 1, 2, 14, 15, 19, and 23).

In order for a reference to anticipate an invention, the reference "must teach every element of the claim" (MPEP §2131). Accordingly, in view of the failure by Ellul et al to

specifically disclose or suggest the claimed organic peroxides would necessarily make this reference fail to anticipate the present invention.

Applicants request withdrawal of the rejection of Claims 1, 2, and 14-27 over Ellul et al.

The rejection of Claims 1, 2, and 14-27 under 35 U.S.C. §103(a) over Chaudhary et al (US 6,325,956) in view of Ellul et al (US 5,656,693) is obviated by amendment.

As discussed above, Ellul et al fails to disclose or suggest the specifically claimed organic peroxides.

Chaudhary et al disclose a process comprising (a) forming a polymeric admixture including at least one polyolefin which has been prepared using a single site catalyst and at least a crosslinking amount of at least one poly(sulfonyl azide) crosslinking agent; (b) shaping the resulting admixture; and (c) heating the resulting shaped admixture to a temperature at least the decomposition temperature of the crosslinking agent (see Abstract and Claim 1) and products obtained thereby (see Abstract).

In making this rejection, the Examiner points to comparative samples A-C in which an ethylene/octane copolymer (ethylenic polymer) is admixed with dicumylperoxide (an organic peroxide). The Examiner further notes that Chaudhary et al disclose foaming agents, such as azodicarboamide, in comparative sample F. However, Applicants note that the amendment presented herein specifically defines the organic peroxide, which does not include the only organic peroxide disclosed by Chaudhary et al: dicumylperoxide. Moreover, as specifically indicated above, Ellul et al do not include any of the claimed organic peroxides amongst its list of the same.

Applicants note that, citing In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974), MPEP §2143.03 states: “To establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” Applicants submit that the disclosure of Chaudhary et al, even when combined with the disclosure of Ellul et al, fails to meet this requirement, and as such the artisan would have no motivation to obtain the claimed composition or any reasonable expectation of the advantageous obtained thereby.

Furthermore, MPEP §2142 states: “To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation... to modify the reference... Second, there must be a reasonable expectation of success. Finally, the prior art reference... must teach or suggest all the claim limitations.”

Specifically, Applicants note that the only organic peroxide disclosed by Chaudhary et al is dicumylperoxide. Moreover, Chaudhary et al explicitly state that peroxides are undesirable crosslinking agents (see column 2, lines 25-28 and the claims). Therefore, the entire premise of Chaudhary et al is to teach the artisan away from the presently claimed invention, and thus the claimed organic peroxides. This teaching away is further emphasized by simple inspection of the Examples, which clearly show that the compositions containing dicumylperoxide are less desirable within their invention than the poly(sulfonyl azide). Accordingly, Chaudhary et al provides no motivation to combine its disclosure with that of Ellul et al and, in fact, hints at this undesirability.

Therefore, Applicants note that Chaudhary et al and Ellul et al fail to provide any motivation to modify and/or combine their disclosures to arrive at the claimed organic peroxides. In addition, even if the artisan would ever, even inadvertently, combine the teachings of Chaudhary et al and Ellul et al this combination would fail to render the present

invention obvious, as there is no reasonable basis to conclude that the combined disclosures provide the requisite "reasonable expectation of success."

In view of the foregoing, Applicants submit that Claims 1, 2, and 14-27 are not obvious in view of the combined disclosures of Chaudhary et al and Ellul et al. Withdrawal of this ground of rejection is requested.

Applicants submit that the present application is now in condition for allowance.  
Early notification of such action is earnestly solicited.

Respectfully submitted,

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